

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 88-125

NPDES NO. CA0005134

AMENDING WASTE DISCHARGE REQUIREMENTS:

CHEVRON USA, INC., RICHMOND REFINERY,
CHEVRON CHEMICAL COMPANY, RICHMOND PLANT, and
GENERAL CHEMICAL CORPORATION, RICHMOND WORKS,
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board) finds that:

1. The discharge of wastewater from the Chevron USA Refinery, Chevron Chemical Company and General Chemical facilities is currently regulated by Waste Discharge Requirements, Order No. 87-073, adopted by the Board on June 17, 1987. Chevron USA, Inc., Chevron Chemical Company, and General Chemical Corporation are hereinafter referred to as the Discharger.
2. The selenium effluent limits listed in Effluent Limitation A.3 in Order No. 87-073 are performance based limits, which were developed using data from two analytical methods, the graphite furnace atomic absorption analytical method prior to October 24, 1986, and the more sensitive gaseous hydride atomic absorption method for selenium analysis after October 24, 1986. The Discharger has submitted information in a letter dated May 12, 1988 which provides detailed analysis of a discrepancy between the current analytical results for selenium which are based only on the gaseous hydride method, and past data on which the limits were based. The Discharger has demonstrated that the graphite furnace analytical results are consistently lower values than the gaseous hydride data, and that the performance-based selenium limit is therefore artificially low. The Discharger has requested that the performance based selenium limit be based only on gaseous hydride method data, and that it be included as a mass based limit.
3. Waste 002 consists of approximately 44 million gallons per day of thermal waste (once through cooling water) from Chevron USA. Waste 002 is discharged into Castro Creek, a tributary of San Pablo Bay, at a point 500 yards downstream of its confluence with Wildcat Creek. Algicides employing chlorine and bromine are added every two and one half hours for fifteen minutes duration. The addition rates are designed to give less than 0.1 mg/l chlorine at the permitted outfall. The Basin Plan limit for chlorine residual is 0.0 mg/l.
4. As this project is an NPDES Permit amendment, this action is exempt from the provisions of Chapter 3 (commencing with Section 21110) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

5. The Board has notified the Discharger and interested agencies and persons of its intent to amend waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.
6. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, that this Board's Order No. 87-073 is amended as follows:

1. Effluent Limitation A.3 is revised as follows:

a. Delete:

The discharge of Waste 001 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Maximum Daily</u>
...
Selenium	ug/l	26	45
...

b. Add:

The discharge of Waste 001 containing constituents in excess of the following limits is prohibited:

<u>Constituent</u>	<u>Units</u>	<u>Monthly Average</u>	<u>Maximum Daily</u>
...
Selenium	lbs/day	3.5	3.7
	kgs/day	1.6	1.7
...

2. Effluent Limitation A.13 is included to read as follows:

The survival of test fishes in 96 hour static renewal bioassays of the discharge of waste 002 shall be a median of 90 percent survival in three consecutive samples and not less than 70 percent survival.

3. Effluent Limitation A.14 is included to read as follows:

Waste 002 shall not have a chlorine residual greater than 0.0 mg/l.

4. Effluent Limitation A.15 is included to read as follows:

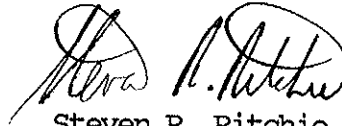
Waste 002 shall not have a bromine residual greater than 0.0 mg/l.

5. Provision D.21 is included to read as follows:

Compliance with Effluent Limitation A.13 shall be demonstrated using the species, Menidia beryllina in a static renewal bioassay consisting of grab sample.

6. The self-monitoring program for Order 87-073 shall be revised according to the attached amended self-monitoring program, Table 1.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 20, 1988.



Steven R. Ritchie
Executive Officer

Attachment

NPDES PERMIT NO. CA0005134

REVISED TABLE 1.

OF

SELF MONITORING PLAN

PART B.

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	E-001	E-002	E-003	E-005	E-006	E-007	E-008 E-009	E-010	I-001
TYPE OF SAMPLE	C-24 G	C-24 G	C-24 G	G	G	G	G	G	C-24 G
Flow Rate (mgd)	Cont	Cont							
BOD, 5-day, 20° C, & COD (mg/l & kg/day)	W								
Chlorine Residual (mg/l)		W							
Settleable Matter (ml/1-hr. & cu. ft./day)		W							
Total Suspended Matter (mg/l & kg/day)	W		M						
Oil and Grease (mg/l & kg/day)		W ⁽¹⁾		W ⁽¹⁾	E	E	E	E	
Fish Toxicity			M	W					
Ammonia Nitrogen (mg/l & kg/day)	N		M						
Chloride (mg/l)	N								
PH (units)		(2) Cont	(2) Cont		E	E	E	E	
Dissolved Oxygen (mg/l and % Saturation)				W					
Temperature (°C)		Cont	Cont						
Sulfides Total (mg/l)		W							
Sulfides (if DO < 5.0 mg/l)									
Total & Dissolved (mg/l)									
Arsenic (mg/l & kg/day)	N								
Cadmium (mg/l & kg/day)	N								
Chromium, Total (mg/l & kg/day)	N								
Copper (mg/l & kg/day)	N								
Cyanide (mg/l & kg/day)	N								
Silver (mg/l & kg/day)	N								
Lead (mg/l & kg/day)	N								
Aluminum (mg/l & kg/day)	N								
Cobalt (mg/l & kg/day)	N								
Bromine Residual (mg/l)		W							

TABLE 1 (Continued)
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS											
Sampling Station	E-011		E-012		Interim (10) E-004		Final (10) E-004		C-001 C-002	R	P-1 P-3
TYPE OF SAMPLE	C	G	C	G	C-24	G	C-24	G	G	O	O
Mercury (mg/l & kg/day)					M						
Nickel (mg/l & kg/day)					M						
Zinc (mg/l & kg/day)		E			M						
Phenolic Compounds (mg/l & kg/day)					M						
All Applicable Standard Observations									E		E
Bottom Sediment Analyses and Observations											
Total Ident. Chlor. Hydro- carbons (mg/l & kg/day)											
Un-ionized ammonia (mg/l & kg/day)									E		
Rainfall depth and duration					-					D	
Total Pesticides (ug/l & g/day)		E			W		W				
Total Organic Carbon (mg/l & kg/day)		E			W						
Selenium (9) (mg/l & kg/day)					M						
Dibutyltin (ug/l & g/day)		E			W						
(Orthene (ug/l & g/day)					W						
paraquat (ug/l & g/day)					4/Y						
Toxaphene (ug/l & g/day)					4/Y						
Captan (ug/l & g/day)					4/Y						
Chlorodane (ug/l & g/day)					4/Y						
Benzene (ug/l & g/day)		E									
Toluene (ug/l & g/day)		E			M ⁽⁴⁾						
Lindane (ug/l g/day)		E									
Sevin (ug/l & g/day)		E									
BHC (ug/l & g/day)		E									
Trichlorethylene (ug/l & g/day)		E									
Methylene Chloride (ug/l & g/day)		E			M ⁽⁴⁾						
Volatile Organics (5)					(4) 2/Y						
Acid/Base/Neutral Organics (6)					(4) 2/Y						